MARC PRO™

Enhancing Muscle Performance

USER MANUAL

User Manual

Thank you for your investment in obtaining a Marc Pro device. Whether you're an elite athlete, someone who has gotten out of shape or anywhere in between, conditioning with Marc Pro can help you do more, feel better and recover faster. We feel that if your Marc Pro is utilized properly you will have a consistently high level of success. In order to maximize this success, it is necessary that you follow the instructions in this booklet.

Marc Pro
5702 Bolsa Ave.
Huntington Beach, CA 92649
Toll Free: (855) Marc Pro

Read this User Manual carefully before you start using your Marc Pro
It is imperative that you carefully read the "Warning and Cautions" and "Safety Guide" sections of the User Manual.

Contraindications:

Do not use Marc Pro if you have one or more of the following medical conditions:

1. This device must not be used on persons with cardiac pacemakers, defibrillators; or other implanted metallic electronic devices.
2. Epilepsy
3. Following acute trauma or fracture
4. Following recent surgical procedures
5. Critical ischemia of lower limbs
6. Abdominal or inguinal hernia
7. Cancer or cancerous lesions

Precautions:

1. Some persons may experience skin irritation or hypersensitivity due to the electrical stimulation or electrical conductive medium (gel).
2. This device should be kept out of the reach of children.
3. This device should be used only with the leads, electrodes, and accessories recommended for use by the manufacturer.

Adverse Reactions:

1) Skin irritation and burns beneath the electrodes have been reported with the use of stimulation electrodes applied to the skin
2) Headache and other painful sensations have been reported during or following the application of electrical stimulation applied to the head, face and near the eyes.

Warnings:

1. The long term effects of prolonged use of electrical stimulation are unknown.
2. Stimulation should not be applied over the neck. Severe spasm of the muscles may occur and the contractions may be strong enough to close the airway or cause difficulty in breathing. Stimulation over the neck could also have adverse effects on the heart rhythm or blood pressure.
3. Electrodes used for electrical stimulation should not be applied across the chest because the introduction of electrical current into the chest may cause rhythm disturbances to the heart.
4. The effects of stimulation of the brain are unknown. Therefore, stimulation should not be applied across the head and electrodes should not be placed on opposite sides of the head.
5. Electrodes should be applied only to normal, intact, clean skin. Electrodes should not be applied over open wounds or over swollen, infected, or inflamed areas or skin eruptions, e.g., phlebitis, thrombophlebitis, varicose veins, etc.
6. Electrodes should not be shared with other persons. Each person should have their own set of electrodes; otherwise, undesirable skin reactions may occur.
7. Self-adhesive electrodes should be replaced if they no longer stick firmly to the skin.
8. Stimulation should not be applied when in the bath or shower.
9. Safety of powered muscle stimulators for use during pregnancy has not been established.
10. Marc Pro should not be used while driving, operating machinery, or during an activity in which involuntary muscle contractions may put the user at undue risk of injury.
11. Do not use the device in humid atmosphere (sauna, hydrotherapy, etc)
12. Caution should be used for patients with suspected or diagnosed heart problems.
13. Caution should be used when applying the device over a menstruating uterus.
14. Caution should be used when applying the device over areas of skin that lack normal sensation.
15. Operation in close proximity to shortwave or microwave therapy may produce instability in the output of the device.
16. Simultaneous connection to h.f. surgical equipment may result in burns at the site of stimulator electrodes and possible damage to the device.
17. To ensure proper use and to mitigate the possibility of interference, avoid placing in close proximity to other electromagnetic devices.

Marc Pro is intended for use on healthy muscles.

- It is to be used by adults only
- Keep out of the reach of children
- We recommend that pregnant women not utilize muscle stimulators

Marc Pro is not intended for adjunctive therapy in the treatment of medical diseases and conditions of any kind.

- Marc Pro is not designed for injured or disease afflicted muscles and its use on such muscles is contraindicated

Never Apply Electrodes:

On both sides of the thorax | On the head or any area of the face | On the neck or any area of the throat | On or near the vicinity of skin lesions or eruptions of any kind

Never use Marc Pro on:

- Painful muscles
- Atrophied muscles
- Muscles with spasms
- Muscles belonging to a limb with painful or afflicted joint

Do not use Marc Pro:

- For muscle reeducation
- To prevent or retard disuse atrophy
- To prevent venous thrombosis
- To maintain or increase range of motion
- For muscle spasms
- For blood flow deficiencies

Who should not use the Marc Pro!

Read and answer the following 10 Questions:

Questions	YES / NO
1. Are you equipped with a cardiac pacemaker, defibrillator, or other implanted metallic or electronic devices?	
2. Are you epileptic?	
3. Have you recently been a victim of an acute trauma (less than 6 months)?	
4. Have you recently been subject to a surgical procedure (less than 6 months)?	
5. Do you have blood flow deficiency in your lower limbs?	

Questions	YES / NO
6. Is the region you want to stimulate injured or suffering from any type of medical condition and or being monitored by a doctor or therapist?	
7. Do you have an abdominal or inguinal hernia?	
8. Do you suffer from cancer?	
9. Are you pregnant?	
10. Do you suffer from cardiac problems or diseases?	

If you answered “Yes”, “maybe” or “I don’t know” to any one or more questions, do not use the device and contact Marc Pro for more information.

*

If you answered “No” to all 10 questions, you can use the Marc Pro.

History of the Marc Pro

The Marc Pro muscle conditioning device was developed using 30 years of medical device experience. The technology has been used for years in sports medicine and with players and trainers from more than 60 professional teams. The technology has also been researched extensively with more than 14 peer reviewed published articles. All of this was used to develop the conditioning and recovery applications of Marc Pro, which is now available to healthy individuals that want to improve performance.

Even though it is impossible to prevent all muscle fatigue and/or muscle soreness … there is a way to quickly eliminate those feelings after physical activity and significantly delay and/or minimize those feelings during physical activity. The plan is basic; if you want to do more, recover faster and feel better … methodically integrate the use of the Marc Pro muscle conditioning device into your schedule after participation in your desired physical activity (to facilitate muscle recovery) and proactively prior to participation in your desired physical activity (to enhance future muscle performance).

How to Contact Us /
Device Repairs:
Marc Pro
5702 Bolsa Ave.
Huntington Beach, CA 92649

Toll Free: **(855) Marc Pro**

Indications For Use:

"Marc Pro" is intended for muscle conditioning by stimulating muscle in order to improve or facilitate muscle performance.

"Marc Pro" is not intended to be used for therapy or treatment of medical diseases or medical conditions.

Contents:

Included Supplies:

Your Marc Pro is supplied with the following unique accessories developed for optimal results.

If there are any discrepancies please contact us.

• Marc Pro device	P/N M4
• 6 packages of electrodes	P/N 70011
• 2 lead wires	P/N 51010 / 51011
• 1 recharger	P/N 51018
• Battery: 7.2 Volts NiMH	P/N 51009
• This user manual	P/N 70012
• A carrying case	P/N 70007

Care of your Marc Pro

Electrode Use and Care:

- When electrodes (pads) are not in use always place on plastic sheet and seal in a resealable plastic bag.
- We recommend that you change pads after 20 uses because conductivity will decrease due to body oils accumulated on electrodes.
- Only use the electrodes supplied by Marc Pro. Other electrodes may present a risk of unsuitable electrical characteristics with your stimulator.
- Do not use the same electrodes on several different people.
- Do not plunge the electrodes into water.
- Do no apply a solvent of any kind onto the electrodes
- Always stop the stimulator before removing or moving the electrodes.
- Always place electrodes on dry, clean, oil and lotion free skin.
- If you're using an optional conductive gel: use a small amount (about the size of a pea) under each electrode. Rub completely into the skin before placing electrode. This can help ensure the most comfortable and strongest signal.

NOTE: Electrode is 2 inch round with conductive hydrogel w/.08" round female connector; not to exceed 0.1 Watt/Cm2.

Physical Characteristics:

Length	6 inches
Width	4.75 inches
Height	2 inches
Weight	1 lb 5 oz

Recharging the Battery:

- A battery gauge is displayed on the LCD screen while either intensity knob is clicked "on". If the battery is empty or flashing then the device should be charged before further use.
- Note: It is fine to charge your device at any time. You do not need to wait until it is empty.
- Plug the recharger into the back of the unit and into the wall outlet. Charge for approximately 8 - 12 hours. The device will indicate when the unit is fully charged.
- When done recharging always remember to unplug the recharger, if it is left in, the unit will not work.
- A fully charged battery should last for 10 or more hours of use.

Pad Placement:

Never place pads in the following locations:

- Anywhere on or through the head
- Across the heart (on the front of the chest)
- On the front or sides of the neck
- From the front to the back of the chest (transthoracic)

The Marc Pro electronic muscle conditioning device is comfortable and designed to be very easy to use. There are two completely independent channels (A and B) and two self adhesive electrodes that stick to the skin per channel. The two electrodes connected to channel A can be used on one muscle or group of muscles; while the two electrodes connected to channel B can be used on another muscle or group of muscles.

It's important to realize that electrode placement is not an exact science. Don't be overly concerned with pin point accuracy or matching any diagram exactly. The Marc Pro was designed to be simple to use; you don't need to know about motor points, trigger points, or any significant anatomy or physiology. How your body feels and responds is most important to choosing the best electrode placement.

To start, identify the muscle that you would like to condition or help recover after activity. Think about a potential weak link (what gets tired first and recovers last). If it's a single muscle place an electrode at either end of the muscle or above and below the muscle belly (the most dense central part of the muscle). If you want to activate more than one muscle with a single channel then place one electrode on the belly of each muscle (e.g., one electrode on the most dense part of your left trap and one electrode on the most dense part of your right trap)

Connect the two electrodes to channel A and slowly turn up the channel A intensity dial. As the muscle starts to contract and relax you will be the best judge of electrode placement. If the target muscle is contracting well; then your placement is good. If the muscle is not contracting well or at all then simply repeat the process moving the electrodes until you get the target muscle to contract. Even very small adjustments (as little as an inch) in electrode placement can make a significant difference in the strength of the contractions. These small adjustments can also have a significant effect on which muscles are being activated.

Next you can follow this same procedure with the two electrodes attached to channel B.

Note that depending on electrode locations you may contract additional muscles beyond your target; this will only improve the results. The benefits will be regional, but focused on the muscles that are actually contracting the most.

The following diagrams show some common and popular pad placement locations. You'll notice that sometimes one of the Marc Pro channels is used to focus intensely on just one muscle, and in other cases one of the Marc Pro channels is used to activate numerous muscles at the same time. For some focusing on small specific areas is needed to obtain the desired results; while other times excellent results and efficiency can be obtained by stimulating multiple muscle areas at the same time.

Remember that these diagrams are just examples and general guidelines for electrode placement. The ideal electrode placement will take into account exactly what muscles you are trying to help and how you feel when the device is used.

Instructions:

Marc Pro has two intensity knobs, each of which, when spun clockwise,
click into the “On” position and activate the LCD screen and the electrical signal.

Step 1 Before the device is used you must make sure that the battery is charged. Take the device out of the case, face the front of the machine, and click on one of the knobs (Intensity). The battery gauge should be partially or completely full. If the battery gauge is empty or flashing then recharge the device (see: charging instructions)

Step 2 Make sure both intensity knobs are in the off position and that the recharger is unplugged from the wall and the back of the device.

Step 3 With the Face of the machine in front of you, take the gray lead wires out and plug the rubber connector into the channel A output jack. Take the black lead wires out and plug the rubber connector into the channel B output jack.

Step 4 Take out a package of electrodes, and remove from Ziploc bag.

Step 5 Connect the 4 silver pins on the end of the lead wires to each of the four electrodes. Place the electrodes on the skin according to the pad placement guidelines. --- ***Note**: Skin should be clean and dry.*

Step 6 Get into a relaxed and still position (laying down, sitting in a chair or on a couch). You should be comfortable and the muscles being worked should be free to contract without resistance. (If you are tense and resist the contractions or if you’re in a position that causes significant resistance you will not benefit from Marc Pro)

MARC PRO™
Enhancing Muscle Performance

Step 7 Once the pads are firmly in place, click on the Channel A and B Intensity knobs and slowly turn up each knob according to your tolerance. The intensity level goes from 0.0 to 9.0 and is displayed on the LCD screen.

You will start to feel a gentle rhythmic pulsating sensation that will get stronger and stronger as you turn the dial up. A strong visible contraction is possible and desirable in most areas of the body. An intensity level between 6-9 is commonly reached, but it is OK to turn the intensity up slowly. In general the higher the intensity the better the results will be; however, it is very important that the signal level stay within your tolerance.
(Remember: As long as the intensity is not raised above your tolerance and you don't resist the contractions, even extremely strong and visible contractions will not fatigue your muscles. This is ideal for conditioning and is what makes the Marc Pro technology so unique)

Step 8 A typical session should last 30-60 minutes. If being used for recovery, sessions are typically performed 1-2 times per day as needed until recovered. For conditioning and enhanced performance the only difference is consistency. Using Marc Pro proactively (e.g., 1-2 times per day 3 or more days per week) creates the conditioning benefits that will not only help muscles recover better, but also help them perform better. Note: Longer sessions (1-4 Hours) can be used if needed to obtain desired benefits. Fatigue should not be a concern, but watch for skin irritation during extended session times.

Step 9 When the session is over, turn the two intensity knobs to the off position. Unplug the electrodes and leads and place them back in their storage container.

It is important that the electrodes are placed and sealed back in their Ziploc bag to ensure that they last to their full potential. (See electrode care with any additional questions.)

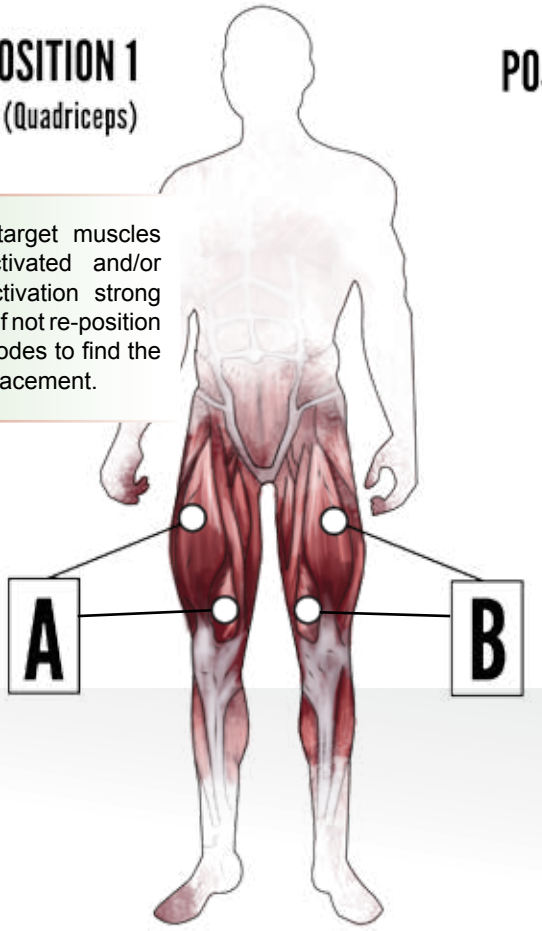
MARC PRO™
Enhancing Muscle Performance

COMMON ELECTRODE PLACEMENTS

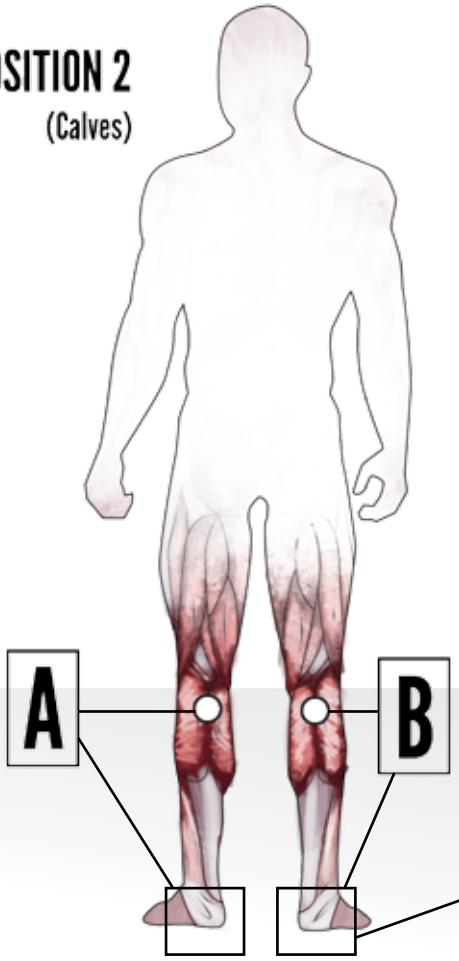
To see Marc Pro in use and for electrode placement examples, please visit www.marcpro.com/placements

POSITION 1
(Quadriceps)

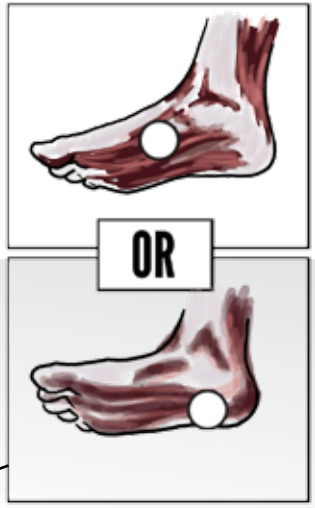
Are the target muscles being activated and/or is the activation strong enough? If not re-position the electrodes to find the optimal placement.

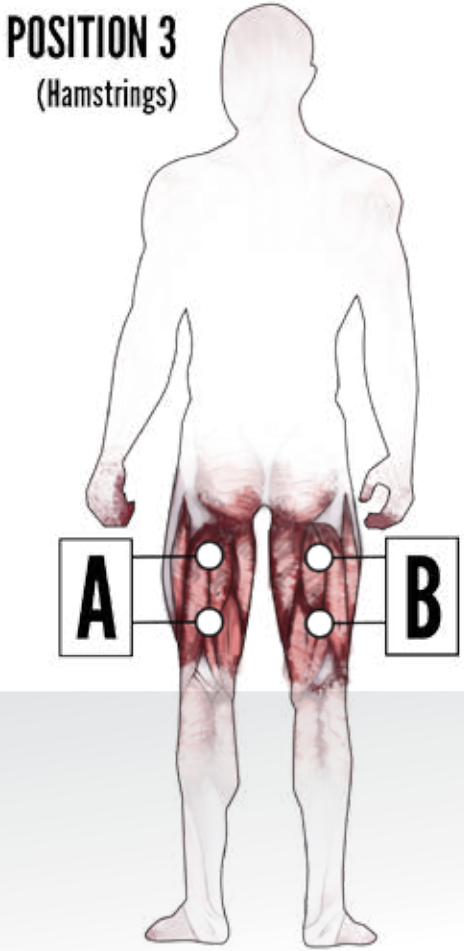


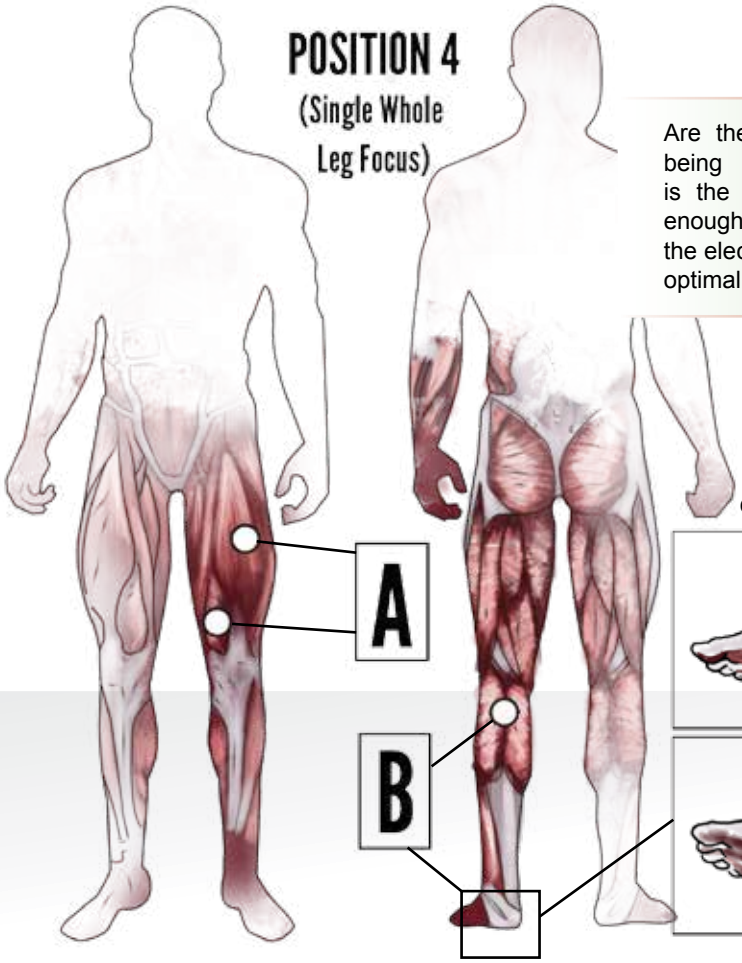
POSITION 2
(Calves)



* Under side of each foot, either arch or heel

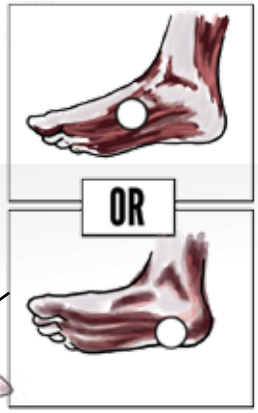






Are the target muscles being activated and/or is the activation strong enough? If not re-position the electrodes to find the optimal placement.

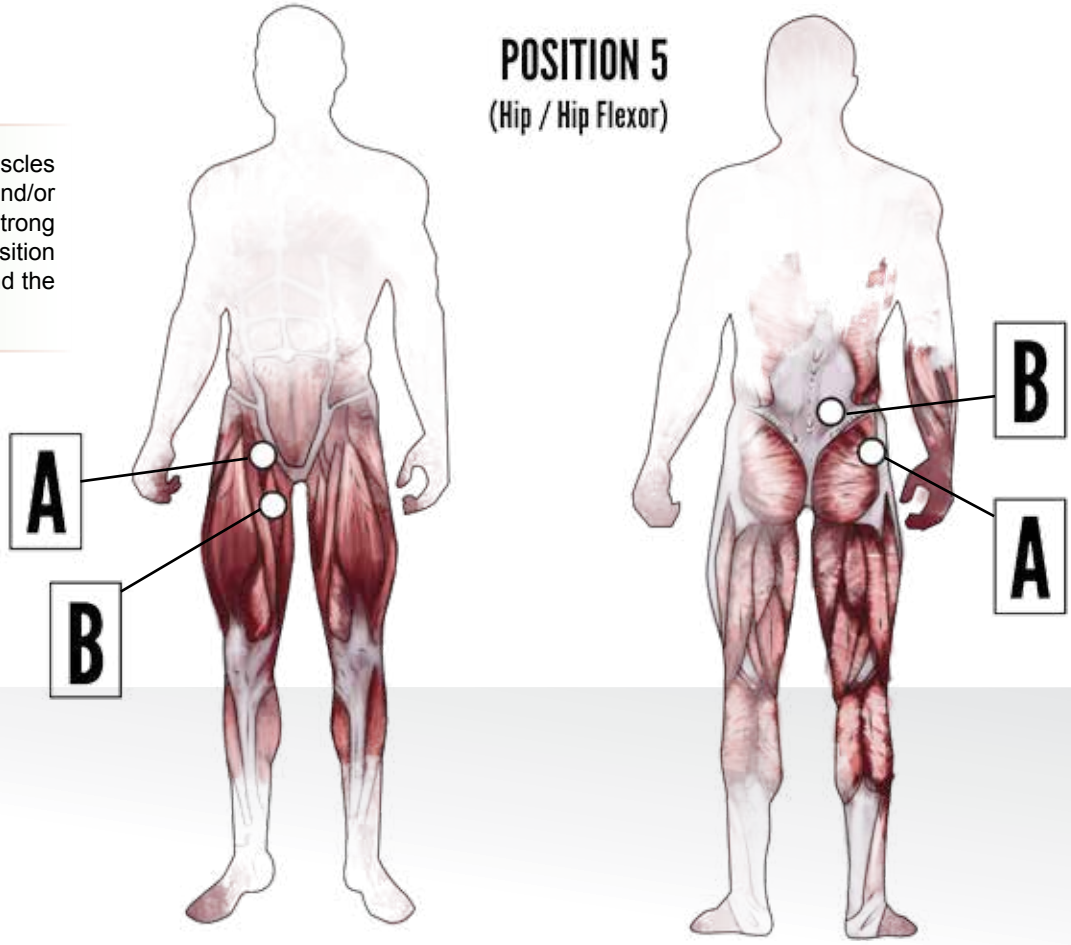
* Under side of each foot, either arch or heel



Are the target muscles being activated and/or is the activation strong enough? If not re-position the electrodes to find the optimal placement.

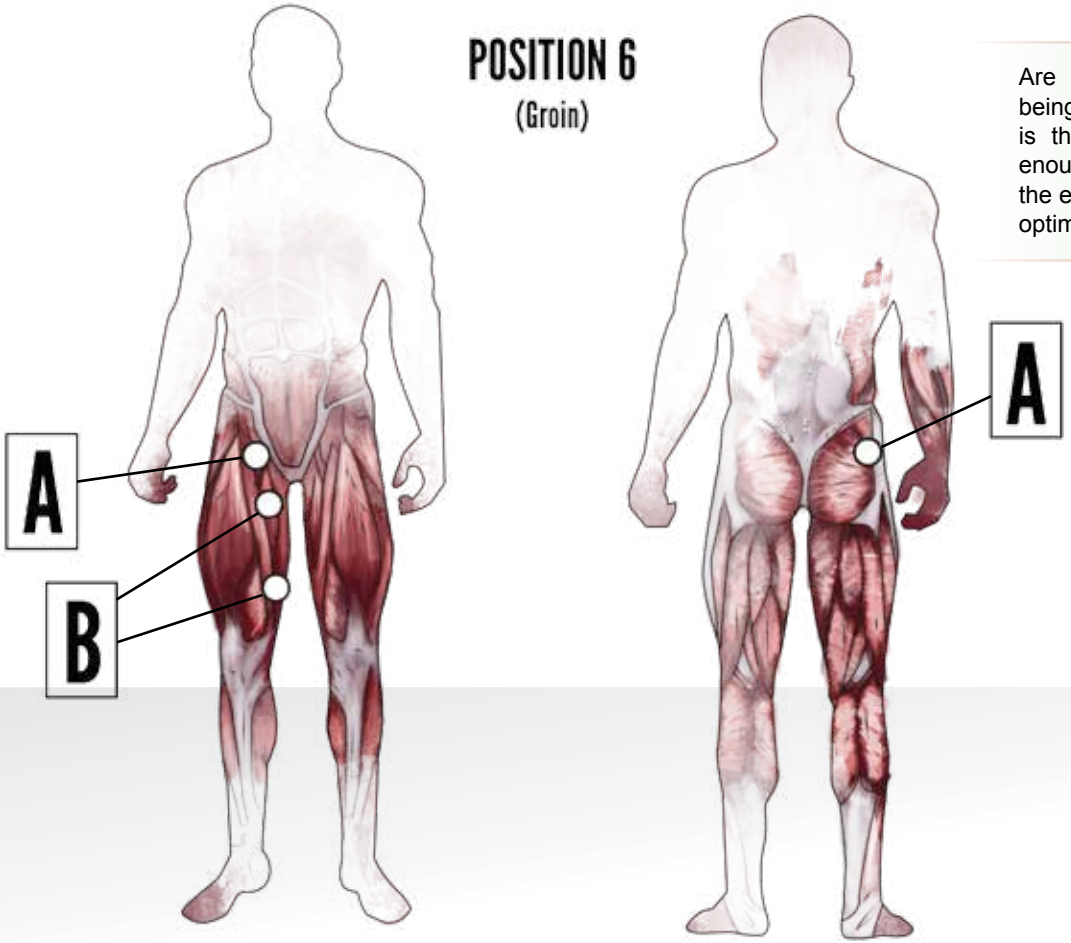
POSITION 5

(Hip / Hip Flexor)



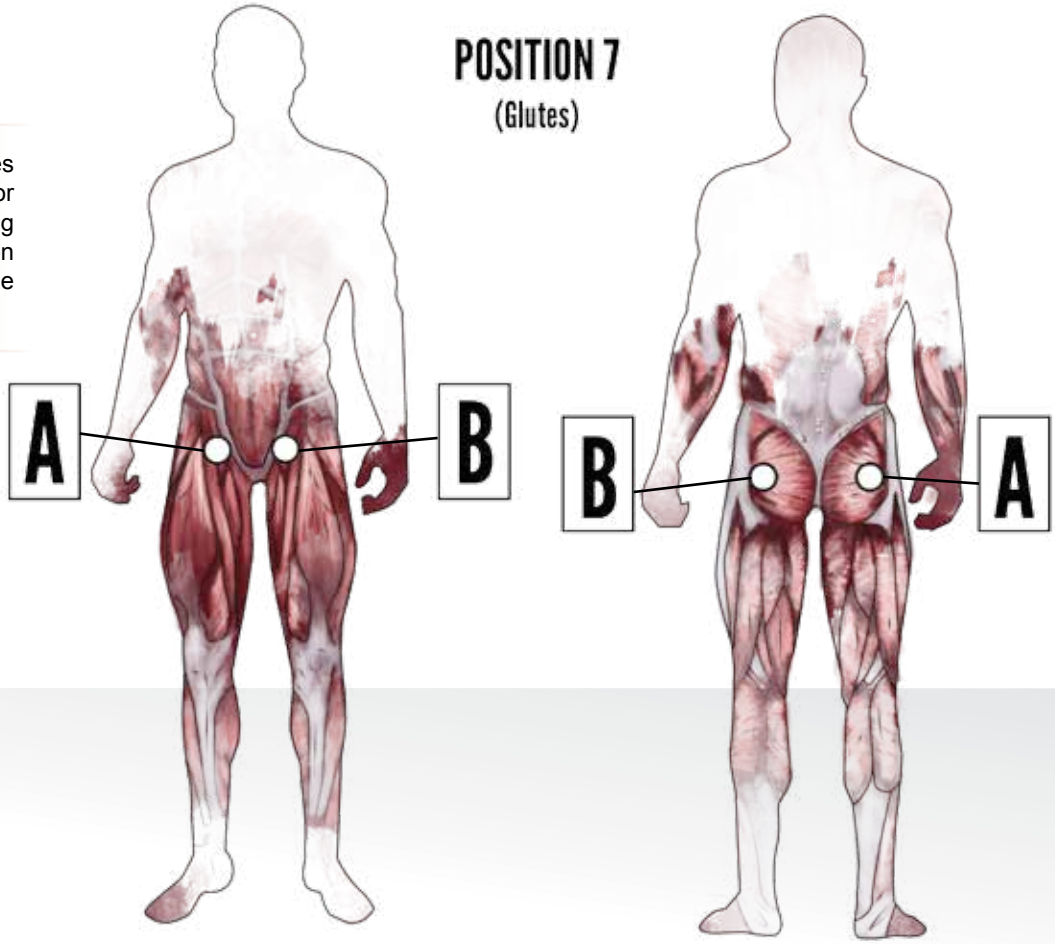
POSITION 6

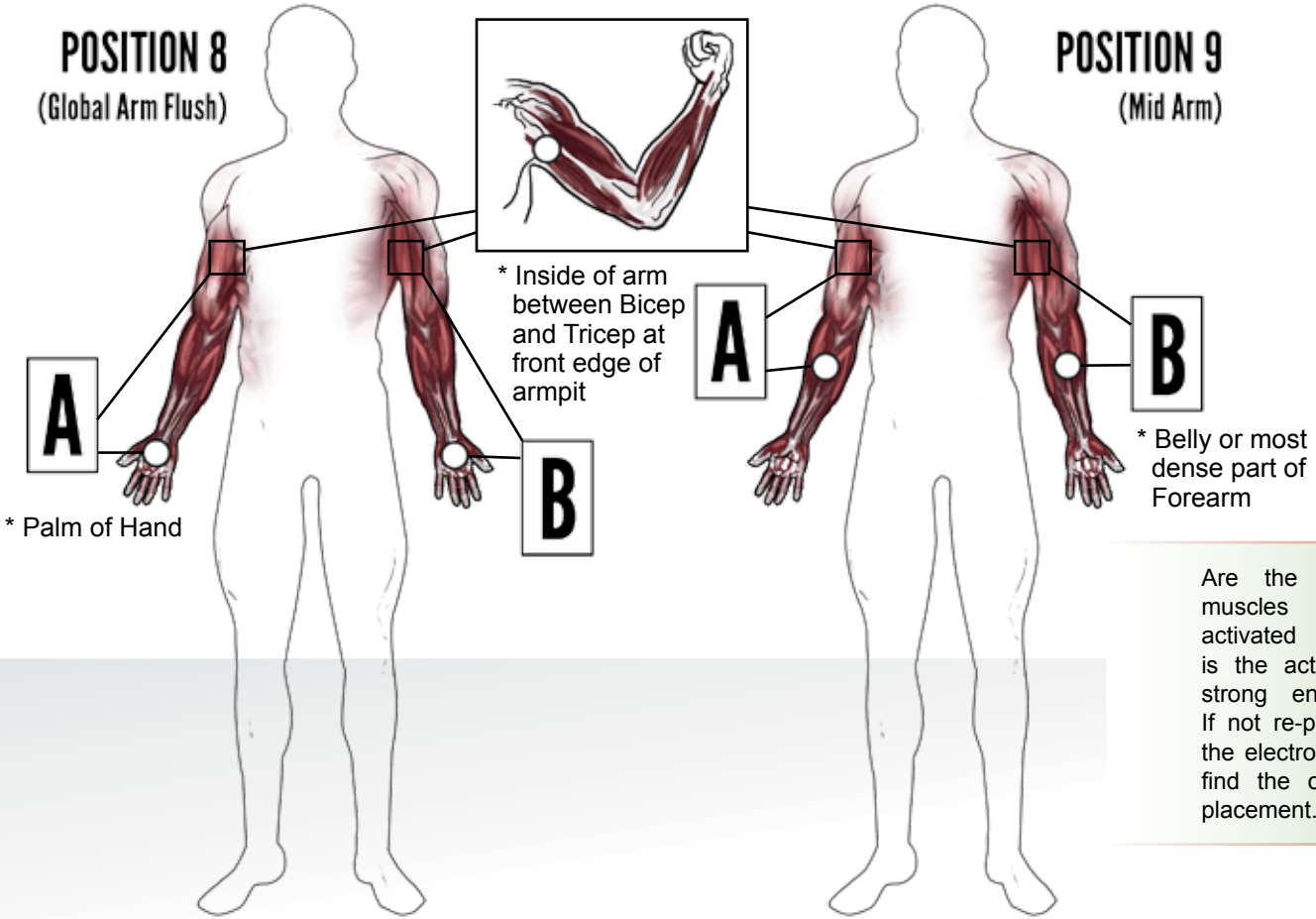
(Groin)



Are the target muscles being activated and/or is the activation strong enough? If not re-position the electrodes to find the optimal placement.

Are the target muscles being activated and/or is the activation strong enough? If not re-position the electrodes to find the optimal placement.

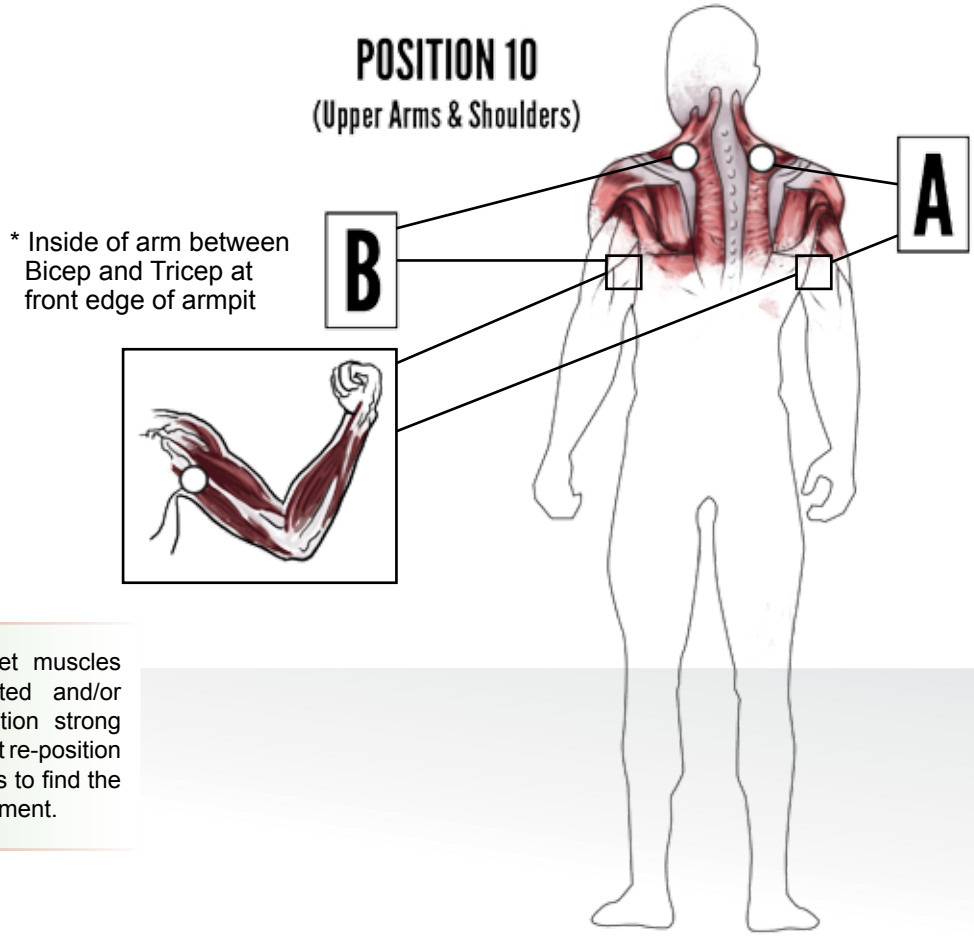




Are the target muscles being activated and/or is the activation strong enough? If not re-position the electrodes to find the optimal placement.

POSITION 10

(Upper Arms & Shoulders)



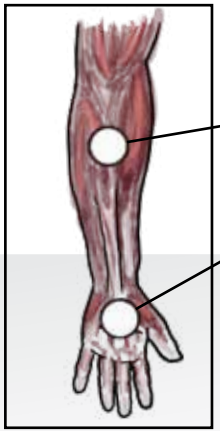
Are the target muscles being activated and/or is the activation strong enough? If not re-position the electrodes to find the optimal placement.

POSITION 11

(Single Whole Arm Focus)

* Inside of arm between Bicep and Tricep at front edge of armpit

A



B

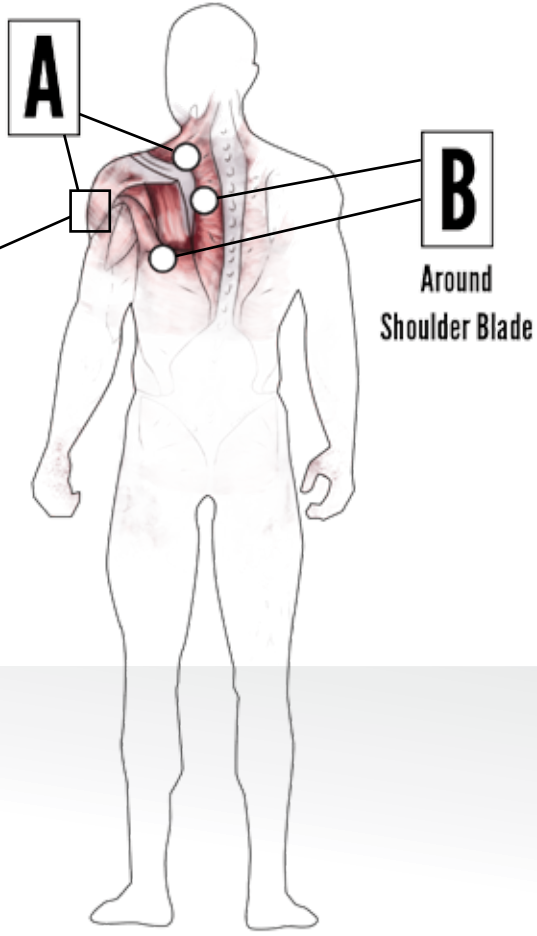
* Belly or most dense part of Forearm

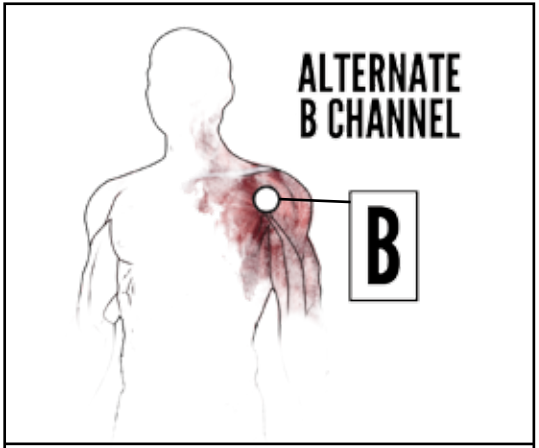
* Palm of Hand

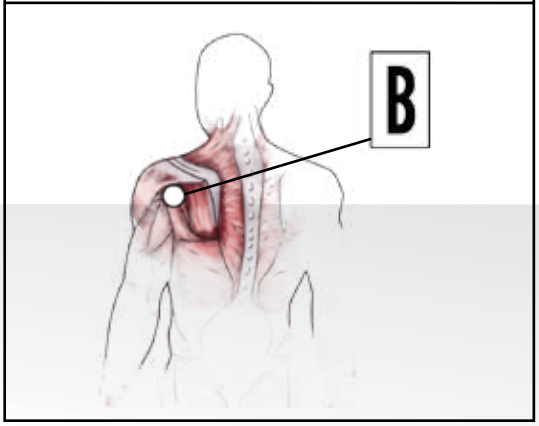
Are the target muscles being activated and/or is the activation strong enough? If not re-position the electrodes to find the optimal placement.

POSITION 12

(Focused Shoulder)

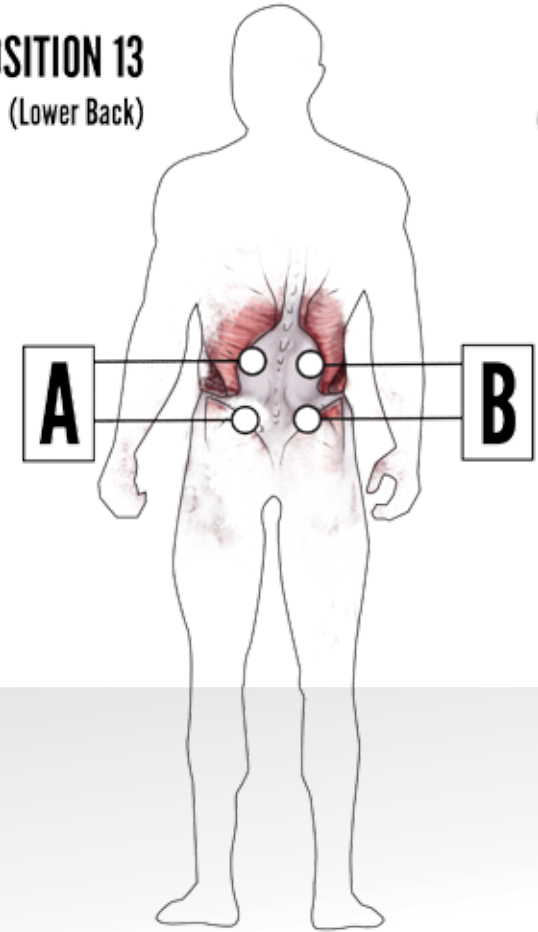




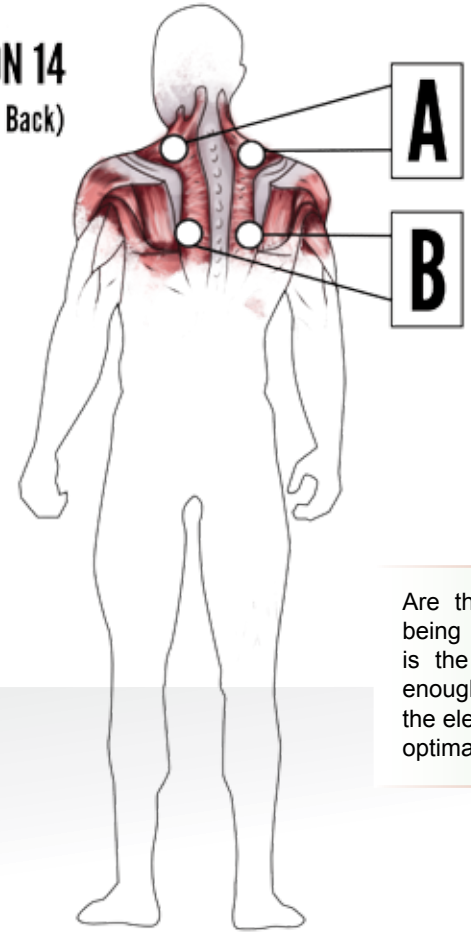


Are the target muscles being activated and/or is the activation strong enough? If not re-position the electrodes to find the optimal placement.

POSITION 13
(Lower Back)



POSITION 14
(Traps and Mid Back)



Are the target muscles being activated and/or is the activation strong enough? If not re-position the electrodes to find the optimal placement.

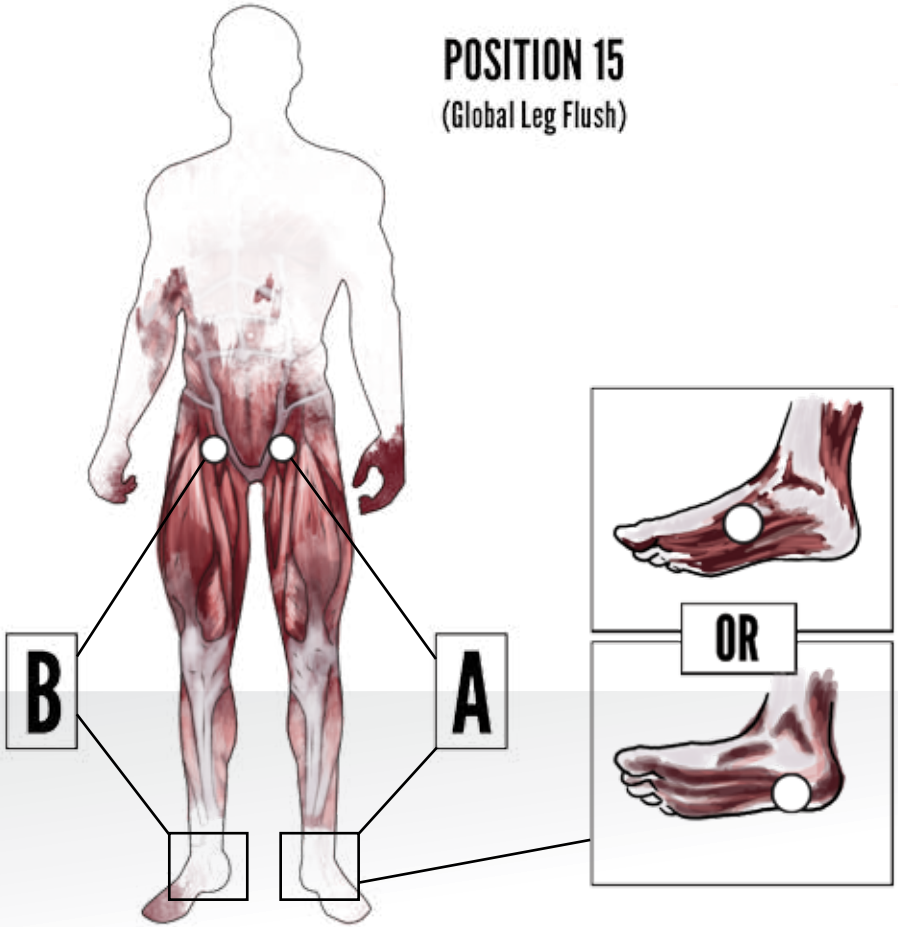
TIME EFFICIENT ELECTRODE PLACEMENT EXAMPLES

(For Several Target Areas at Once)

The following examples show how you can activate more muscle groups at the same time, which can be helpful for those with numerous target areas for improvement. The compromise is that each muscle group is stimulated less than in the previous “Focused Target Area” examples. This may (or may not) slow or lesson the benefits to some degree; however every user is different and only a trial will determine the answer for you.

POSITION 15

(Global Leg Flush)

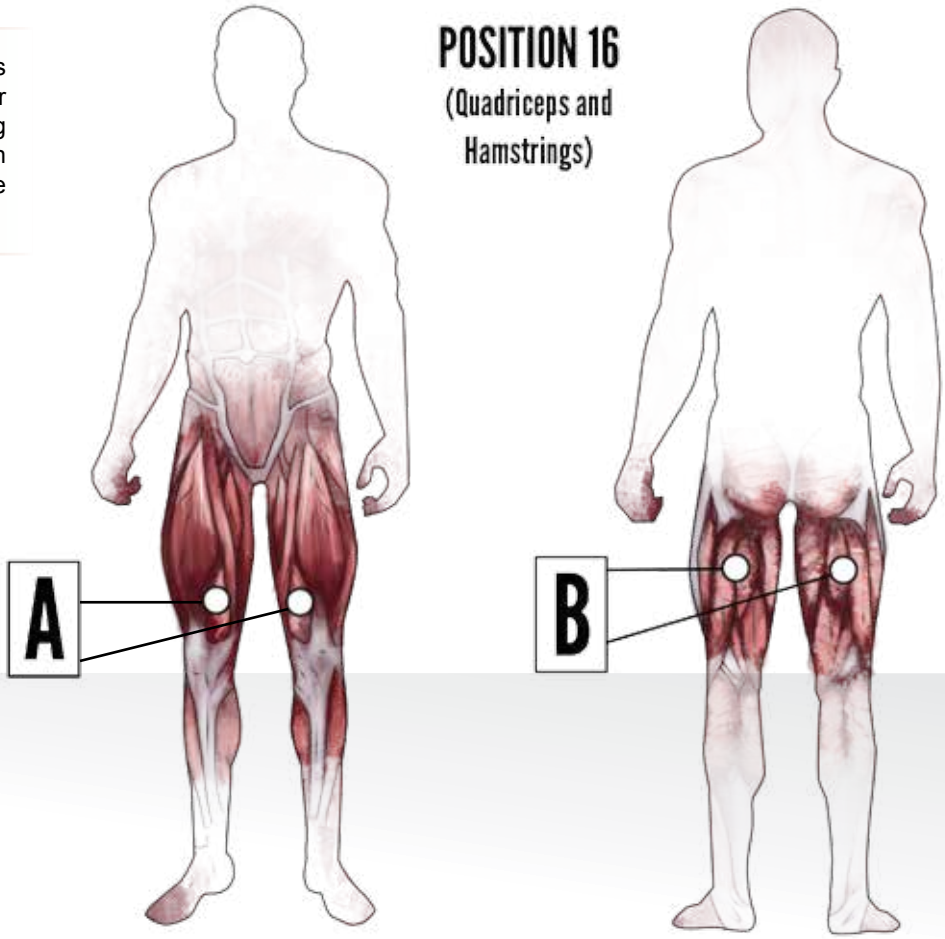


Are the target muscles being activated and/or is the activation strong enough? If not re-position the electrodes to find the optimal placement.

Are the target muscles being activated and/or is the activation strong enough? If not re-position the electrodes to find the optimal placement.

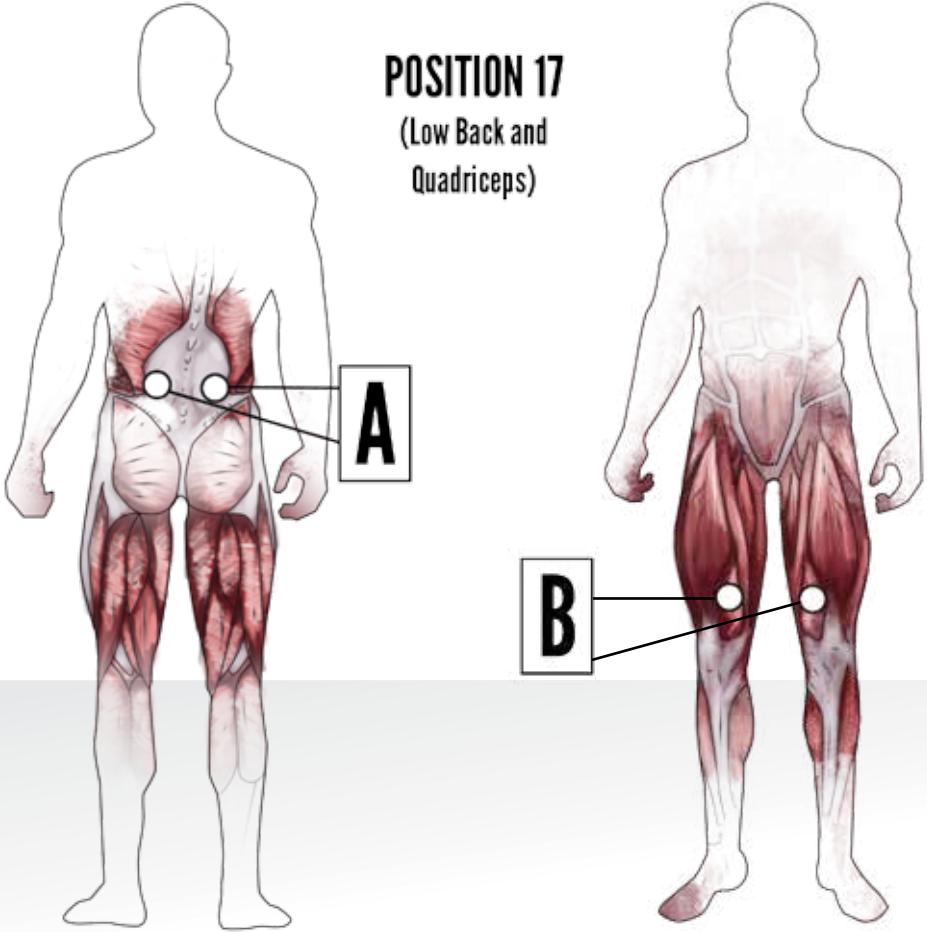
POSITION 16

(Quadriceps and Hamstrings)



POSITION 17

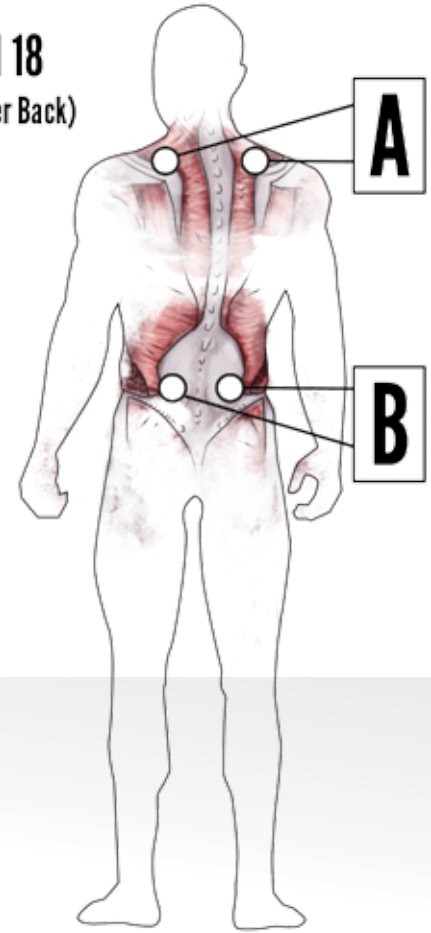
(Low Back and Quadriceps)



Are the target muscles being activated and/or is the activation strong enough? If not re-position the electrodes to find the optimal placement.

POSITION 18

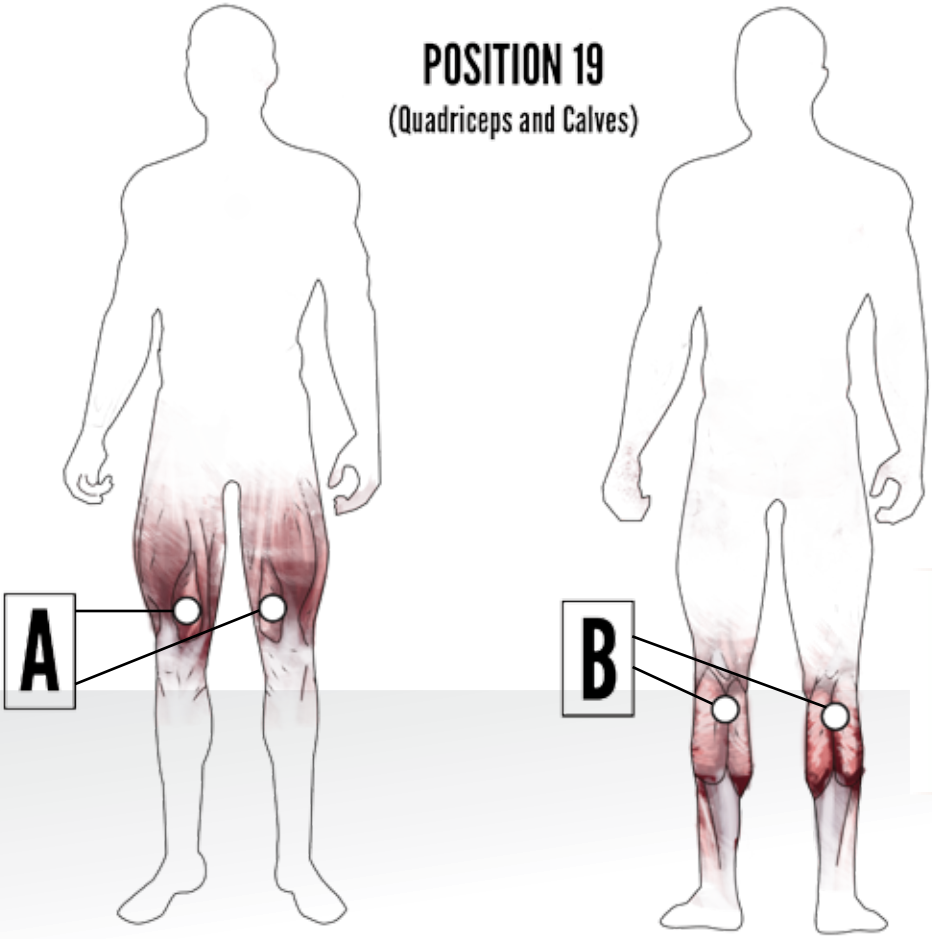
(Traps and Lower Back)



Are the target muscles being activated and/or is the activation strong enough? If not re-position the electrodes to find the optimal placement.

POSITION 19

(Quadriceps and Calves)



Are the target muscles being activated and/or is the activation strong enough? If not re-position the electrodes to find the optimal placement.

MIXING AND MATCHING GUIDELINES

Your needs and your responses will decide and dictate the best electrode placements. Remember that Channels A and B are completely independent. Channel A can be used on one muscle or group of muscles, while Channel B can be used on another. For example Channel A might be used to address muscles in your left arm; while Channel B could be used to address muscles on your low back, or your right calf. Any mix and match is acceptable that helps you address your muscle conditioning goals.

Visit www.marcpro.com
for more info, tips, tricks and best practices

Troubleshooting:

- If the battery gauge starts flashing during the treatment, the charge level of the batteries is getting low. Stop the treatment session and recharge the device.
- If the signal feels week or intermittent:
  - Check to make sure all pads have a good connection to the skin.
  - It may be time to change to a new set of electrodes. (*see electrode care*)
  - Try fully charging your battery.
- If the unit is clicked into the on position and the LCD screen does not turn on, check that the charger is unplugged from the wall and the back of the device. Also be sure battery is charged.
- If this had been done and there is no change or if the unit does not seem to be holding its charge between treatments; please contact Marc Pro. The battery may need to be replaced.

Technical Data:

- Voltage 0-35V
- Current 0-35mA
- Frequency 2Hz
- Bi-phasic waveform
- Pulse Duration 5ms; 1ms at 50% of max amplitude

** tests conducted under 1K load*

NOTE OPERATING INSTRUCTIONS ⚠

Cleaning Your Unit:

To clean your Marc Pro, use a cloth and an alcohol-based cleaning product, which does not contain solvents.

Clean as needed.

Storage & Transport Conditions:

The Marc Pro contains rechargeable batteries and so the storage conditions must not exceed the following figures:

Storage temperature:
from -4° F to 113° F, -20° C to 45° C
Max. relative humidity: 75%
Atmospheric pressure:
from 700 hPa to 1060 hPa

Disposal: For environmental protection the device, the battery and its accessories have to be disposed of properly.

www.marcpro.com

L9 Rev.C